

REMARKS/ARGUMENTS

Favorable reconsideration of this application in light of the present amendment in the following discussion is respectfully requested.

Claims 1-28 are presently pending in this case. Claims 1, 3, 5, 6, 8, 13, and 15-27 are amended and new Claim 28 is added by the present amendment. As amended Claims 1, 3, 5, 6, 8, 13, and 15-27 and new Claim 28 are supported by the original disclosure,¹ no new matter is added.

In the outstanding Official Action, Claim 25 was objected to; Claim 12 was rejected under 35 U.S.C. §112, first paragraph; Claims 1-27 were rejected under 35 U.S.C. §112, second paragraph; Claims 23-26 were rejected under 35 U.S.C. §101; Claims 1-25 and 27 were rejected under 35 U.S.C. §102(e) as anticipated by Kawasaki (U.S. Patent No. 7,010,688); Claim 26 was rejected under 35 U.S.C. §103(a) as unpatentable over Kawasaki in view of Ugon (U.S. Patent No. 7,010,688); and Claims 1 and 11-16 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as unpatentable over Claims 1-7 of U.S. Patent Application No. 10/792,574 in view of Kawasaki.

Applicants and Applicants' representatives thank Examiners Kane and Barron for the courtesy of the interview granted to Applicants' representatives on August 15, 2007. During the interview, differences between the claims and Kawasaki were discussed. Examiner Kane agreed that a proposed amendment to Claim 1 appeared to overcome the rejection of record. This proposed amendment to Claim 1 is presented herewith.

With regard to the objection to Claim 25, Claim 25 is amended to delete "said second step." Accordingly, the objection to Claim 25 is believed to be overcome.

¹See, e.g., the specification at page 20, lines 13-24.

With regard to rejection of Claim 12 under 35 U.S.C. §112, first paragraph, it is respectfully submitted that Claim 12 is supported in the specification at least by page 10, line 17 to page 11, line 6. Further, it is respectfully submitted that one of ordinary skill in the art would recognize the mutual authentication procedure discussed in the present specification. Accordingly, it is respectfully submitted that the present specification enables one of ordinary skill in the art to make and use the invention recited in Claim 12. Consequently, Claim 12 is in compliance with all requirements under 35 U.S.C. §112, first paragraph.

With regard to rejection of Claim 1-27 under 35 U.S.C. §112, second paragraph, Claim 1 is amended to recite "said key generating means generates said key data by using only one of said first data or said second data from among said first data and said second data received from said authenticating means." Further, Claims 19 and 21 are amended to provide antecedent basis for all terms. Accordingly, Claims 1-27 are in compliance with all requirements under 35 U.S.C. §112, second paragraph.

With regard to rejection Claims 23-26 under 35 U.S.C. §101, Claims 23-26 are amended to recite a computer readable medium, which is an article of manufacture. Consequently, Claims 23-26 are in compliance with all requirements under 35 U.S.C. §101.

With regard to the rejection of Claims 1, 17, 23, and 27 as anticipated by Kawasaki, that rejection is respectfully traversed.

Amended Claim 1 recites in part:

an authenticating means for authentication with a device to be authenticated on the basis of key data; and
a key generating means for generating said key data on the basis of the data received from said authenticating means and providing the same to said authenticating means,
wherein said authenticating means provides first data and second data to said key generating means, and ***said key generating means generates said key data by using only one of said first data or said second data*** from among said first data and said second data received from said authenticating means.

In contrast, Kawasaki describes an authentication scheme that uses a secret key and equipment secret information 13.² The outstanding Office Action cited a secret key of Kawasaki as “first data” and the equipment information 13 of Kawasaki as “second data.”³ However, it is respectfully submitted that Kawasaki describes that **both** the secret key and secret information 13 is used during the authentication scheme.⁴ Thus, it is respectfully submitted that Kawasaki does not teach any key generating means that generates key data by using **only one** of first data or second data from among first data and second data received from an authenticating means. Therefore, Kawasaki does not teach “key generating means” as defined in amended Claim 1. Consequently, Claim 1 (and Claims 2-16 dependent therefrom) is not anticipated by Kawasaki and is patentable thereover.

Amended Claims 17 and 23 recite in part “generating key data with said key generating means by using only one of said first data or said second data from among said first data and said second data obtained at said receiving.”

As noted above, Kawasaki describes that **both** the secret key and secret information 13 is used during the authentication scheme. Thus, it is respectfully submitted that Kawasaki does not teach generating key data by using **only one** of first data or second data from among first data and second data. Therefore, Kawasaki does not teach “generating key data” as defined in amended Claims 17 and 23. Consequently, Claims 17 and 23 (and Claims 18-22 and 24-26 dependent therefrom) are not anticipated by Kawasaki and are patentable thereover.

Amended Claim 27 recites in part:

an authenticating circuit for authentication with a
device to be authenticated on the basis of key data; and

²See Kawasaki, column 13, lines 26-49.

³See the outstanding Office Action at page 5, lines 19-22.

⁴See Kawasaki, column 13, lines 36-40.

a key generating circuit for generating said key data on the basis of the data received from said authenticating circuit and providing the same to said authenticating circuit,
wherein said authenticating circuit provides first data and second data to said key generating circuit, and said key generating circuit generates said key data by using ***only one*** of said first data or said second data from among said first data and said second data received from said authenticating circuit.

As noted above, Kawasaki describes that ***both*** the secret key and secret information 13 is used during the authentication scheme. Thus, it is respectfully submitted that Kawasaki does not teach any key generating circuit that generates key data by using ***only one*** of first data or second data from among first data and second data received from an authenticating circuit. Therefore, Kawasaki does not teach “a key generating circuit” as defined in amended Claim 27. Consequently, Claim 27 is not anticipated by Kawasaki and is patentable thereover.

With regard to the rejection of Claim 26 as unpatentable over Kawasaki in view of Ugon, it is noted that Claim 26 is dependent from Claim 23, and thus are believed to be patentable for at least the reasons discussed above. Further, it is respectfully submitted that Ugon does not cure any of the above-noted deficiencies of Kawasaki. Accordingly, it is respectfully submitted that Claim 26 is patentable over Kawasaki in view of Ugon.

New Claim 28 is supported at least by original Claim 1 and the specification at page 20, lines 13-24. New Claim 28 recites in part:

an authenticating unit configured to authenticate a device to be authenticated on the basis of key data; and
a key generating unit configured to generate said key data on the basis of the data received from said authenticating unit and to provide the key data to said authenticating unit,
wherein said authenticating unit is configured to provide first data and second data to said key generating unit, and ***said key generating unit is configured to generate said key data by using only one of said first data or said second data*** from among said first data and said second data received from said authenticating unit.

As noted above, Kawasaki describes that **both** the secret key and secret information 13 is used during the authentication scheme. Thus, it is respectfully submitted that Kawasaki does not teach any key generating unit configured to generate key data by using **only one** of first data or second data from among first data and second data received from an authenticating unit. Therefore, Kawasaki does not teach "a key generating unit" as defined in new Claim 28. Consequently, new Claim 28 is not anticipated by Kawasaki and is patentable thereover.

With regard to the non-statutory double patenting rejection of Claims 1 and 11-16 over Claims 1-7 of U.S. Patent Application No. 10/792,574 in view of Kawasaki, the rejection is respectfully traversed in light of the terminal disclaimer submitted herewith.

The filing of a terminal disclaimer to obviate a rejection based on non-statutory double patenting is not an admission of the propriety of the rejection. The "filing of a terminal disclaimer simply serves the statutory function of removing the rejection of double patenting, and raises neither a presumption nor estoppel on the merits of the rejection." *Quad Environmental Technologies Corp. v. Union Sanitary District*, 946 F.2d 870, 20 USPQ2d 1392 (Fed. Cir. 1991). Accordingly, Applicants filing of the attached disclaimer is provided for facilitating a timely resolution to prosecution only, and should not be interpreted as an admission as to the merits of the obviated rejection.

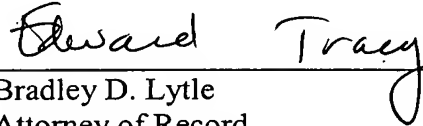
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Accordingly, the pending claims are believed to be in condition for formal allowance.

An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
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A handwritten signature in cursive script, reading "Edward Tracy", is written over a horizontal line.

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